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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,003

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Job Cornelis Oostveen

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,003	Applicant(s) OOSTVEEN ET AL.	
	Examiner Trang U. Tran	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13 and 22-27 is/are allowed.
- 6) ☒ Claim(s) 1-7, 14-21, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 recites the limitation "the first and/or second representation" in lines 3 and 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections – 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 29 is rejected under 35 U.S.C. 101 because in the state of the art, transitory signals are commonplace as a medium for transmitting computer instruction and thus, in the absence of any evidence to the contrary and give the broadest reasonable interpretation, the scope of a "computer readable medium" covers a signal per se." In order to overcome the 101, the "computer readable medium" should be changed to "non-transitory computer readable medium".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before

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the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 7, 14-19 and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Crockett et al. (US Publication No. 2004/0148159 A1).

In considering claim 1, Crockett et al discloses all the claimed subject matter, note 1) the claimed deriving a first fingerprint (102) on the basis of a segment of the first signal (101), where the segment of the first signal (101) is unambiguously related with a first synchronization time point (T_n ; T_{n+1}) is met by the signature 1 or fingerprint 1 (Figs. 1A-1B, page 1, paragraph #0011 to page 2, paragraph #0015), 2) the claimed deriving a second fingerprint (104) on the basis of a segment of the second signal (103), where the segment of the second signal (103) is unambiguously related with a second synchronization time point (T_n ; T_{n+1} ; T_m) is met by is met by the signature 2 or fingerprint 2 (Figs. 1A-1B, page 1, paragraph #0011 to page 2, paragraph #0015), and 3) the claimed supplying the first and second fingerprints (102, 104) to a synchronization device (200, 300) is met by the time offset calculation 4 and the time alignment 6 (Figs. 1A-1B, page 1, paragraph #0011 to page 2, paragraph #0015).

In considering claim 2, the claimed characterized in that the method further comprises for each given synchronization time point (T_n ; T_{n+1} ; T_m), storing the derived first fingerprint (102) in a database (203) and/or storing the derived second fingerprint (104) in the same or another database (203) is met by the signature or fingerprint of the audio is embedded in the video signal prior to transmission or storage (Figs. 1A-1B, page 2, paragraph #0013).

In considering claim 3, the claimed characterized in that the first fingerprint (102) and the second fingerprint (104) are transmitted to the synchronization device (300) via the Internet or via other means is met by the time offset calculation 4 and the time alignment 6 (Figs. 1A-1B, page 1, paragraph #0011 to page 2, paragraph #0015).

In considering claim 4, the claimed characterized in that the segment of the first signal (101) and/or the segment of the second signal (103) are unambiguously related with the first and/or second synchronization time point (T_n ; T_{n+1} ; T_m) according to: the segment of the first signal (101) and/or the segment of the second signal (103) ending substantially at the first and/or second synchronization time point (T_n ; T_{n+1} ; T_m), the segment of the first signal (101) and/or the segment of the second signal (103) starting substantially at the first and/or second synchronization time point (T_n ; T_{n+1} ; T_m), the segment of the first signal (101) and/or the segment of the second signal (103) starting or ending at a predetermined distance before or after the first and/or second synchronization time point (T_n ; T_{n+1} ; T_m), or the first and/or second synchronization time point (T_n ; T_{n+1} ; T_m) being at a predetermined time point between a start and an end of the segment of the first signal (101) and/or the segment of the second signal (103) is met by both signatures or fingerprints which may be generated at the same relative timing relationship (Figs. 1A-1B, page 1, paragraph #0012 to page 2, paragraph #0015)

In considering claim 5, the claimed characterized in that the first (T_n ; T_{n+1}) and second synchronization time point (T_n ; T_{n+1} ; T_m) is the same is met

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by both signatures or fingerprints which may be generated at the same relative timing relationship (Figs. 1A-1B, page 1, paragraph #0012 to page 2, paragraph #0015).

In considering claim 7, the claimed transmitting the first and/or second representation to a synchronization device (300), and/or transmitting the first and/or second representation to a server (600) in communications connection with a synchronization device (300), and/or transmitting the one or more derived first fingerprints (102) and second fingerprints (104) to the server (600) is met by both signatures or fingerprints which may be generated at the same relative timing relationship (Figs. 1A-1B, page 1, paragraph #0012 to page 2, paragraph #0015).

In considering claim 14, the claimed characterized in that said first signal (101) is an audio signal, said second signal (103) is a video signal, said first fingerprint (102) is an audio fingerprint, and said second fingerprint (104) is a video fingerprint is met by the signature or fingerprint of the audio is embedded in the video signal prior to transmission or storage and the signatures 1 and 2 or fingerprints 1 and 2 (Figs. 1A-1B, page 1, paragraph #0012 to page 2, paragraph #0015).

Claims 15-19 are rejected for the same reason as discussed in claims 1-5, respectively.

Claim 28 is rejected for the same reason as discussed in claim 14 above.

Claim 29 is rejected for the same reason as discussed in claim 1 above.

Claim Rejections – 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section discloses all the claimed subject matter, note 1) the claimed of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crockett et al. (US Publication No. 2004/0148159 A1).

In considering claim 6, Crockett et al disclose all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed characterized in that the first synchronisation time point (T_n ; T_{n+1}) is different from the second synchronisation time point (T_n ; T_{n+1} ; T_m) and in that the method comprises the step of storing a first representation of a relationship between the first synchronisation time point (T_n ; T_{n+1}) and a first time point of a reference time (107) and storing a second representation of a relationship between the second synchronisation time point (T_n ; T_{n+1} ; T_m) and a second time point of said reference time (107). The capability using of the first synchronisation time point (T_n ; T_{n+1}) is different from the second synchronisation time point (T_n ; T_{n+1} ; T_m) and in that the method comprises the step of storing a first representation of a relationship between the first synchronisation time point (T_n ; T_{n+1}) and a first time point of a reference time (107) and storing a second representation of a relationship between the second synchronisation time point (T_n ; T_{n+1} ; T_m) and a second time point of said reference time (107) is old and well known in the art.

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Therefore, the Official Notice is taken. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to incorporate the old and well known using of the first synchronisation time point (T_n ; T_{n+1}) is different from the second synchronisation time point (T_n ; T_{n+1} ; T_m) and in that the method comprises the step of storing a first representation of a relationship between the first synchronisation time point (T_n ; T_{n+1}) and a first time point of a reference time (107) and storing a second representation of a relationship between the second synchronisation time point (T_n ; T_{n+1} ; T_m) and a second time point of said reference time (107) into Crockett et al's system in order to provide a fast and accurate method of time aligning two audio and video signals.

Claim 20 is rejected for the same reason as discussed in claim 6 above.

In considering claim 21, the claimed a transmitter for transmitting the first and/or second representation to a synchronisation device (300), and/or a transmitter for transmitting the first and/or second representation to a server (600) in communications connection with a synchronisation device (300), and/or a transmitter for transmitting the one or more derived first fingerprints (102) and second fingerprints (104) to the server (600) is met by both signatures or fingerprints which may be generated at the same relative timing relationship (Figs. 1A-1B, page 1, paragraph #0012 to page 2, paragraph #0015 of Crockett et al).

Allowable Subject Matter

9. Claims 8-13 and 22-27 are allowed.

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The independent claims 8 and 22 identifies the uniquely distinct features: “generating a second fingerprint stream (105) on the basis of a second signal (101), comparing a segment of the first fingerprint stream (105) with one or more first fingerprints (102) stored in at least one database (203) in order to determine if a match exists or not, comparing a segment of the second fingerprint stream (106) with one or more second fingerprints (104) stored in the at least database (203) in order to determine if a match exists or not, and if a match exists for both a first and a second fingerprint (102; 104) determining a location of a first synchronisation time point (T_n, T_{n+1}) for the first signal (101) and a location of a second synchronisation time point ($T_n, T_{n+1}; T_m$) for the second signal (103) and synchronising the first (101) and the second (103) signal using the determined locations”. All the references of record, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hu et al. (US Publication No. 2006/0156374 A1) disclose automatic synchronization of audio and video based media services of media content.

Wang et al. (US Patent No. 7,627,477 B2) disclose robust and invariant audio pattern matching.

Xiang et al. (US Patent No. 7,359,006 B1) disclose audio module supporting audio signature.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 9:00 AM - 6:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 24, 2010

/Trang U. Tran/
Primary Examiner, Art Unit 2622